

ABSTRACT

A fast search is performed of a large text database, while suppressing an increase in the data size of the data structure used for the process. A pattern search method for searching a target character string for a desired pattern includes: a range search step and a character string extraction step. At the range search step, intermediate patterns are obtained by adding characters in order, one by one, from the last character of the pattern to the first, and a range is determined for a suffix array, which corresponds to the target character string, wherein the first character of each of the intermediate patterns is present. Then, at the character string extraction step, elements of the character string are designated that correspond to elements included in the range of the suffix array, and character string segments are extracted consisting of the same number of elements as the elements of the pattern and having the elements of the character string as their first characters.